

### **ABSTRACT OF DISCLOSURE**

A color wheel index aligning apparatus for a projection display apparatus and an alignment method thereof. The color wheel index aligning apparatus has a signal supply unit for supplying a predetermined image signal to the display apparatus, a color detection unit for detecting the color of the image signal output to the screen, a storage unit for storing a color coordinate value, and a control unit for measuring the color coordinate of the color detected at the color detection unit based on the color coordinates stored in the storage unit, and using the measured color coordinate value, providing the display apparatus with an alignment value for aligning the color wheel index. Increasing and decreasing the delay time of the output timing of an R, G and B color signal in correspondence with the increase and decrease of the alignment value, the display apparatus automatically adjusts aligns the color wheel index.